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ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 12 titles deal with a variety of topics, including the following: the relationship of text organization to readability and reading ability; how advance organizers, outlining, and other preparatory procedures affect learning and reading comprehension; how syntax and semantics affect the recall of connected discourse; a model of affective and cognitive silent reading strategies; the strategic processes involved in beginning reading; grade level differences in reading comprehension; and differences between recognizing words on a word list and words in context. (RL)

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Reading, Comprehension, and Memory Processes:

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Abstracts of the following dissertations are included in this collection:

Coyle, Anne Frances
THE RELATIONSHIP OF MODE OF ORGANIZING FEATURE IN PRINT MATERIALS OF TWO READABILITY LEVELS TO THE RETENTION SCORES OF COLLEGE UNDERGRADUATES

Crook, Jon Christopher
A COMPARISON OF THE EFFECTS OF ADVANCE ORGANIZERS AND ADJUNCT QUESTIONS ON THE COMPREHENSION OF KEY ELEMENTS OF THE SHORT STORY AT THE SECONDARY LEVEL

Dale, Paul Martin
EFFECT OF SUBJECT-GENERATED AND EXPERIMENTER-GENERATED ORGANIZERS ON RETENTION OF CONNECTED DISCOURSE FOR THIRD- AND FIFTH-GRADE STUDENTS

Frost, Frederica Christine
COMICS AS ADVANCE ORGANIZERS WITH ELEMENTARY SCHOOL CHILDREN

Geiger, Frederica Linsley
THE EFFECTS OF ADVANCE ORGANIZER FORMAT AND LEARNER PERSONALITY IN THE LEARNING AND RETENTION OF VERBAL MATERIAL

Gould, Sandra McHenry
CLOZE RESTORATION, RECALL AND DISCOURSE PROCESSING IN MIDDLE GRADE READERS

Johnson, Shirley A. Reynolds
AN ANALYSIS OF THE CONTRIBUTION OF SYNTAX AND SEMANTICS TO THE RECALL OF CONNECTED DISCOURSE

Langer, Judith Ann
AN IDIOSYNCRATIC MODEL OF AFFECTIVE AND COGNITIVE SILENT READING STRATEGIES

MacMullin, Sister Mary Roderick
SUBSTITUTION ERRORS IN THE ORAL READING OF WORDS FROM A WORD LIST, AND OF THE SAME WORDS IN CONTEXT

McCourt, Anne Alycia Allardice
GRADE-LEVEL DIFFERENCES IN READING COMPREHENSION: A COMPARISON OF SECOND-GRADE AND SIXTH-GRADE CHILDREN'S PERFORMANCE ON PASSAGE-DEPENDENT QUESTIONS AT THREE LEVELS OF READING COMPREHENSION

McGuigan, Jolena Bumanglag
THE EFFECTS OF OUTLINING AND PREPARATORY PROCEDURES ON LEARNING FROM VERBAL MATERIALS

Schwartz, Robert Michael
STRATEGIC PROCESSES IN BEGINNING READING: A DEVELOPMENTAL VIEW

THE RELATIONSHIP OF MODE OF ORGANIZING FEATURE IN PRINT MATERIALS OF TWO READABILITY LEVELS TO THE RETENTION SCORES OF COLLEGE UNDERGRADUATES

COYLE, Anne Frances, Ph.D. University of Southern California, 1978. Chairman: Professor William H. Allen

The purpose of this study was to investigate the contributions and possible interactions of verbal ability, organizing feature, and reading difficulty when memory and retention are measured.

Methodology. A passage on metallurgy, (The Properties of Plain Carbon Steel) was adapted for study, by modifying its readability level and inserting different organizing features. Two hundred and forty undergraduates enrolled in English Composition courses, for whom SAT verbal scores were available, and who were randomly assigned to twelve treatment groups, finished the treatment. The variables under investigation, which were common in both the easy and difficult readability versions, were paragraph headings, marginal notes, advance organizers, and advance organizers used in combination with paragraph headings and marginal notes. Two control groups, one at each readability level, were used. All groups were given a thirty-five item test immediately upon completion of the study passage (memory), and were given the same test one week later (retention).

Treatment of the Data. The tests of both memory and retention were hand scored on a number correct basis. The range of scores on the memory test was 3–29 and on the retention test was 2–26. These data were analyzed for significance of main effects and interactions using regression analysis (SPSS package).

Results. The data analysis showed that ability, treatment difficulty, and interactions were significant, while treatment organization was not. When further analysis was performed to isolate the significances the interaction of ability and readability difficulty was significant ($p < .001$) for both memory and retention. The significant ability x organization treatment interactions when memory was measured were ability x advance organizer with paragraph headings ($p < .001$), ability x advance organizer ($p < .005$), and ability x marginal notes ($p < .01$). When retention was measured the significant interactions with ability were advance organizers with paragraph headings ($p < .001$), marginal notes ($p < .005$) and advance organizers ($p < .05$).

Conclusions. The results of these analyses indicate significant interactions between message organization and ability and readability difficulty and ability. This would indicate a need to consider subject ability and the preparation of written instructional materials.

Recommendations. Further study, particularly in the area of marginal notes and their use with advance organizers should be pursued. A shortcoming of the present study is that students were not familiarized with the marginal note format before using it. This may have led to a Hawthorne effect with higher ability students or it may have hampered lower ability students. Further research with the interactions of difficulty and treatments should also be pursued. The present study became complex and cell sizes small when organizing treatments were subdivided by difficulty. This could have been a reason for non-significance of interactions of treatment and ability.

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A COMPARISON OF THE EFFECTS OF ADVANCE ORGANIZERS AND ADJUNCT QUESTIONS ON THE COMPREHENSION OF KEY ELEMENTS OF THE SHORT STORY AT THE SECONDARY LEVEL

Order No. 7823811

CROOK, Jon Christopher, Ph.D. Case Western Reserve University, 1978. 255pp.

This study investigated whether two reading strategies, advance organizers or adjunct questions, improved the comprehension of key elements of the short story (plot, character development, and theme) for students at the tenth grade level. Further, this study compared the effects of both reading strategies to determine if either was superior in its effect on comprehension of these elements at the tenth grade level. Finally, this study compared the effects of both reading strategies to determine if the effects on comprehension of the key elements of the short story varied with socioeconomic or cultural status.

This study involved 360 tenth grade students (185 females and 175 males) who scored within one standard deviation of the mean on the standardized intelligence test used by their schools. Each student read a short story taken from a literature anthology designed for tenth grade students. Students were randomly selected to an advance organizer treatment, an adjunct question treatment, or a control treatment in this reading. The control treatment contained a novelty introduction to minimize the Hawthorne effect. After reading the short story, a 15-item multiple choice comprehension test concerning the appropriate story was completed by each student.

Analysis revealed no significant differences between the effect of either reading strategy, advance organizer or adjunct questions, on comprehension of key elements of the short story and the comprehension of these elements by the control group. The results also showed no significant differences between the reading strategies themselves. Further, results indicated that the effects of the reading strategies on comprehension of the key elements were not significantly different when considered according to students' socioeconomic and cultural status. However, there was a significant difference in comprehension of the key elements of the short story for females exposed to the adjunct question treatment and the control group when females were considered by themselves.

The results of this study indicate that the reading strategies of advance organizers and adjunct questions do not significantly increase the comprehension of the key elements of the short story for secondary school students at the tenth grade level. Further research needs to be undertaken to replicate the experiment with other literary genres and narrative prose and to replicate past experiments with narrative prose using the intelligence controls employed in the current research.

EFFECT OF SUBJECT-GENERATED AND EXPERIMENTER-GENERATED ORGANIZERS ON RETENTION OF CONNECTED DISCOURSE FOR THIRD- AND FIFTH-GRADE STUDENTS

Order No. 7821432

DALE, Paul Martin, Ph.D. Purdue University, 1978. 80pp. Major Professor: Charles E. Kline

This research was designed to determine whether the effectiveness of certain types of organizers varies with grade levels, and to determine the relative value of providing underlined sentences for students, cueing the student to underline his own material, or providing no organizers or cueing.

Two hundred and nine third- and fifth-grade students were blocked according to reading level within each grade level and randomly assigned to one of three experimental conditions. Students were given two passages to read that were identical in content for both grades, but varied in readability level. The passages for group one had the most important sentence in each paragraph underlined, but no underlining was done for groups two and three. Group one was asked to pay particular attention to the one sentence per paragraph that was underlined for them, group two was asked to underline the one sentence

per paragraph that they felt was the most important, and group three only to read the passages. One day after the learning treatment a retention exam was administered that examined both recall and recognition. The exam was assessed for reliability and validity, and the results of the exam were analyzed using analysis of variance.

Results of the retention exam indicated there were no significant differences between treatments, and no significant interactions between grade level and treatment. In this study the effectiveness of organizers did not significantly vary with grade level, and no one method of presenting material was significantly more effective than the other two materials. Results of a post-hoc analysis, using reading level in lieu of grade level, did indicate, however, possible matches between the mode of presentation and reading level.

COMICS AS ADVANCE ORGANIZERS WITH ELEMENTARY SCHOOL CHILDREN

FROST, Frederica Christine, Ph.D. University of Southern California, 1978. Chairman: Professor Myron Dembo

A quasi-experimental study was conducted to explore the use of advance organizers (AOs) with fifth grade public school children. Based on Ausubel's (1963) theory of cognitive structure, AOs serve to establish cognitive anchors to which subsequent learning materials can be attached. Three types of material were presented prior to a passage on sound. These three groups included two types of AO (verbal and comic format) and a control consisting of pictures involving sound. The learning passage and verbal AOs were adapted from Neisworth, Smith, and Deno (1968); the comic AO consisted of the verbal organizer with picture frames. The verbal organizer was classically Ausubelian, while the comic format AO represented an attempt to incorporate concrete empirical props within an AO framework in order to render concept formation more probable in elementary school age children.

The measured variable in the study was the learning score on the sound test. California Test of Basic Skills Total Reading subscale scores were taken from the students cumulative folders and were considered valid indices of verbal ability.

Fifth grade children were administered one of the three types of pre-conditions, viz., verbal AO, comic format AO or pictures. A fourth group received the retention test only. The experimental procedure lasted three days as follows: Day (1) presentation of AO; Day (2) presentation of AO followed by learning passage; Day (3) learning test. Analyses of variance performed through dummy regression indicated no significant differences between treatment groups; no difference in learning facilitation existed between the comic format AO, verbal AO, and picture groups. However, results were confounded by the level of a priori student knowledge of the subject matter on sound, as suggested by the greater than chance performance level of the group receiving only the retention test.

Experimental and control group subjects did not differ in test performance from those receiving the test alone, a generalization that holds across subjects, sex, and classroom environment.

Following the findings of Ausubel and Fitzgerald (1962) that subjects of lower verbal ability benefit to a greater degree from AOs, verbal ability was examined with respect to test performance and type of AO. Analysis of variance through dummy regression indicated no interactive effects of verbal ability and test performance, but a significant effect of verbal ability as a main factor in test performance.

A summary listing of experimental findings follows: (1) Subjects were not naive concerning the learning material. (2) No apparent benefit resulted from reading the learning material. (3) There was no differential effect of organizer type on test performance. (4) No differences in test performance were apparent between girls and boys. (5) There was no relationship between verbal ability and treatment condition on test performance. (6) Verbal ability accounted for a significant amount of variance in test scores.

Results were attributed to the high level of subject prior knowledge concerning the learning material.

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THE EFFECTS OF ADVANCE ORGANIZER FORMAT AND LEARNER PERSONALITY IN THE LEARNING AND RETENTION OF VERBAL MATERIAL

GEIGER, Frederica Linsley, Ph.D. University of Southern California, 1978. Chairman: Professor Robert J. Casey, Jr.

Problem. The purpose of this study was to investigate the relation between learner personality traits and verbal forms of advance organizers to determine whether learning and retention are facilitated by the advance organizers, and if the advance organizers are differentially effective among learners who demonstrate varying degrees of the selected personality traits.

Procedure. This study was conducted with three treatment groups – verbal advance organizer, visual advance organizer, and control – as the treatment variable, and personality scores as the aptitude variable. As there were two personality factors under study, separate experiments were conducted for each of the two factors, utilizing a posttest only design with control group. Experiment I examined Factor G: Superego Strength, as measured by the Jr.-Sr. High School Personality Questionnaire (HSPQ), and verbal, visual, and control treatments. Experiment II investigated Factor Q_3: Self-Sentiment, as measured by the HSPQ, and verbal, visual, and control treatments. Eighty-one eighth-grade students from an inner-city junior high school were randomly assigned to one of three advance organizer treatment groups. Learning and retention were measured via a 30-item multiple choice criterion test administered immediately and after a seven day delay. Data from the experiments was analyzed through use of multiple regression analysis.

Findings. Major findings from the analysis of data were as follows: (1) advance organizer format did not have a significant effect on learning; (2) there was a trend for the visual advance organizer group to achieve higher scores on learning and retention posttests; (3) Superego Strength did not account for a significant proportion of the variance in learning and retention posttest results; (4) Self-Sentiment did not account for a significant proportion of the variance in learning and retention posttest results; (5) the interaction effects of Superego Strength and advance organizer format were not significant; (6) the interaction effects of Self-Sentiment and advance organizer format were not significant.

Conclusions. Based on the findings, the following conclusions were reached: (1) provision of verbal advance organizers will not aid students in achieving the higher posttest scores when other groups are given comparable time to study material to be learned; (2) amount of time spent studying verbal information may be more important in learning and retention of that material than provision of an organizing structure; (3) provision of visual advance organizers may aid learning and retention; (4) Superego Strength and Self-Sentiment are not good predictors of verbal learning and retention; (5) Superego Strength and Self-Sentiment interactions with advance organizer format need not be considered in designing instructional materials.

Recommendations. (1) Expand studies to investigate the trend for visual advance organizers to aid learning and retention; (2) expand studies to investigate aptitude-treatment interactions with other personality factors; (3) expand studies to include other learner age and socio-economic populations.

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CLOZE RESTORATION, RECALL AND DISCOURSE PROCESSING IN MIDDLE GRADE READERS

Order No. 7821931

GOULD, Sandra McHenry, Ed.D. State University of New York at Albany, 1978. 116pp.

The purpose of this research was to investigate the relationships between two well-established measures of comprehension: cloze restoration and recall of textual propositions. Two experiments were planned which employed cloze restoration as one of several orienting tasks for discourse processing by fourth and sixth grade readers. Both experiments studied the effects of cloze tasks on the recall of explicit and implied propositions in relation to other orienting tasks which required performance of logical ordering. A total of 151 students, 69 sixth grade and 82 fourth grade youngsters, in two public schools of a middle-class suburban school district west of Albany, New York, were studied. Subjects were randomly selected and assigned to conditions by grade.

Sixth grade subjects in Experiment I were asked to read the same story passage under one of three experimental conditions: a) instructions to restore cloze units with instructions to recall (intentional); b) instructions to restore cloze units without instructions to recall (incidental); or c) instructions to read and list the four major events of the story in sequence. Subsequently all subjects were asked to write all that they could remember of the story; and later, to respond to a recognition test of true and false inferences. Fourth grade subjects in Experiment II responded to the same story passage under one of the following three conditions, all with instructions to recall: a) instructions to restore cloze units; b) instructions to read and draw a cartoon of the four major events in sequence; or c) instructions to read and list the four major events of the story in sequence. Subsequent instructions were the same as in Experiment I. Overall results support the contention that more is involved in the comprehension of discourse than the mental operations required to complete cloze tasks.

Effect of task on explicit recall of sixth grade youngsters in Experiment I indicated that the logical ordering task (list) was superior to cloze tasks under either incidental or intentional conditions. No differences were found to be significant between tasks in Experiment II but analysis of variance across grades indicated an overall difference between the list and intentional cloze tasks. A planned contrast indicated that the list task produced superior explicit recall. No differences in cued recognition performance were found in either experiment. Results suggest that either the story's familiar theme enabled all subjects to recognize appropriate inferences or the instrument lacked discriminatory power.

The prediction that examiner instructions can discourage the voluntary generation of inferences in recall, and thereby restrict their appearance to cases where they were needed to fill memory gaps was supported. Students in the cloze condition of Experiment I who scored lowest on recall of explicit propositions injected a significantly higher number of inferences in their recall protocols. Inference scores were negatively related to explicit scores in all conditions of Experiment I, and in one condition of Experiment II. However, no correlation was found to be significant. Inferences were rare in both experiments and were often associated with the addition of an emphatic ending. These findings are discussed in terms of the constructivist position that context and task demands can have a powerful effect on how discourse is understood and recalled.

AN ANALYSIS OF THE CONTRIBUTION OF SYNTAX AND SEMANTICS TO THE RECALL OF CONNECTED DISCOURSE

Order No. 7821735

JOHNSON, Shirley A. Reynolds, Ph.D. Indiana University, 1978. 172pp.

A set of three experiments was designed to evaluate variables which may have an influence upon recall. The body of materials for these experiments was constructed according to Miller and Selfridge's approximations to English (AE). Experiment I demonstrated that the four versions used in this study were significantly different with respect to one another in terms of recall using the five orders of approximation (3rd, 4th, 5th, 6th, 7th), which suggests that over the third- to seventh-orders the AE are not equal interval measurements. The mean recall scores did not increase as the orders of approximation increased which suggests that the orders are not necessarily successive approximations to normal prose. Experiment II was designed to assess the syntactic contribution to recall by systematically substituting words of the same form and part of speech using very specific grammatical categories to disrupt the semantic element as much as possible while maintaining the syntactic element. Parallel lists were constructed such that the original consisted of approximations to English from zero-order of approximation to text material while the syntactic lists were derived from the original and had minimal semantic relationships between proximal words. Recall scores suggest that the syntactic element minimally contributes to recall because subjects scored significantly lower on the syntactic sequences than the original sequences, and there was no significant difference across AE's for the syntactic sequences. Nevertheless, it does seem probable that the syntactic element indirectly contributes to recall by allowing for the development of a semantic element since there was generally an increase in recall across AE's; this is consistent with Lakoff's generative semantics approach which takes the position that the syntactic and semantic elements of connected discourse are inseparable. The purpose of Experiment II was to determine variables which would be reliable predictors of recall. By utilizing a stepwise multiple regression analysis six variables were found to be significant ($p < .001$), and the resulting predictive regression equation for recall can be written:

$$Y' = -1.66 + 1.99(ATEP_d) + 1.47(\text{z-score}) + .10(LLgth) + .52(RAE) + (-1.62)(ATEP_a) + .76(TEP_b),$$

where: ATEP equals mean segments derived from an altered transitional error probability measure; RAE equals mean segments derived from a revised approximation measure; LLgth equals list length; and TEP equals mean segments derived from a transitional error probability measure. The proportion of total variation in recall (R^2) explained by this regression equation is .61, while the standard error of estimate is 3.95. Although this equation is only a fair predictor of recall, it does give us a means for evaluating the predictive values of the variables considered. By evaluating the correlation coefficients between the variables considered and recall, it can be seen that: (1) TEP measures are slightly negatively associated with recall which suggests that a phrase structure approach is not consistent with whatever functional units the subjects were utilizing; (2) AE has a much lower correlation with recall than RAE, which is essentially a reliability check on AE; and (3) ATEP measures have a progressively higher correlation with recall using increasingly broader bands for calculating mean segments. Further analysis of the data suggests that many other variables enter in to the processing of word lists for immediate recall which makes it extremely difficult to predict recall. These findings also indicate that the transformational grammar approach might be more appropriate than other models of grammar to specify the functional units of connected discourse because it is necessary to consider the contribution not only of surface structure but also of deep structure to recall.

AN IDIOSYNCRATIC MODEL OF AFFECTIVE AND COGNITIVE SILENT READING STRATEGIES Order No. 7821251

LANGER, Judith Ann, Ph.D. Hofstra University, 1978. 169pp.

This dissertation presents the rationale for, as well as the depiction and explanation of an idiosyncratic model of silent reading strategies. Both the affective and cognitive factors involved in gaining meaning from a text have been integrated. The major purposes for the development of this model were:

(1) to incorporate into a generalized process model of silent reading those idiosyncratic aspects of the reader's phenomenal field which dynamically flex and interact with the graphic display and help determine the reader's perceptions of the author's message;

(2) to incorporate into a model of reading a description of the connections, which contribute to an expansion of ideas, leading to the development of integrated meaning;

(3) to incorporate into a generalized model of reading the psycholinguistic notions of sampling, predicting, corroborating, rejecting, and/or refining; and

(4) to depict all of the above as they dynamically interact in the mind of the reader to produce idiosyncratic integrated meaning.

An extensive search of the literature was undertaken, and pertinent elements derived from this search were integrated with this researcher's first-hand educational experiences in working with readers of all ages. Both empirical and observational findings were carefully analyzed prior to their being interwoven into the resulting constructs formulated for inclusion in the model.

The conceptual framework from which this model emanated derived support and breadth through the incorporation of research and theory reported by researchers in diverse fields of inquiry concerned with the augmentation of meaning. Aspects of the interrelationships of cognitive psychology, phenomenology, psycholinguistics, linguistics, and reading have been carefully scrutinized, weighed, and synthesized. The resulting model is extensive in scope and permits future research to proceed from a broad point of reference in the study of the reading processes activated during the acquisition of meaning.

This dynamic model of reading represents the processes of gaining idiosyncratic integrated meaning from the silent reading of continuous textual discourse. Included are the roles of the affective interactions as well as the cognitive connections and integrations energized during the silent reading of a continuous text. The model has been designed to depict the reading processes which form a continuous cycle of scanning the graphic display, making associations and anticipated relationships, deriving corroborated meaning, and taking in additional graphic input based on the reader's phenomenal fields as it interacts with the graphic display in the build-up of idiosyncratic meaning.

This model can be used as a basis for diagramming individual strategies as a particular reader processes through a specific text, and to record student growth through the diagramming of changing strategies.

SUBSTITUTION ERRORS IN THE ORAL READING OF WORDS FROM A WORD LIST, AND OF THE SAME WORDS IN CONTEXT Order No. 7817393

MAC MULLIN, Sister Mary Roderick, Ed.D. Temple University, 1978. 287pp.

This study was designed to compare word recognition in the oral reading of words from a list, and of the same words in context, and to examine substitution errors occurring under each condition. In addition, all substitutions and omissions in context were categorized into various subclasses. Correlations between reading comprehension and word recognition under each condition, between reading comprehension and semantically and syntactically acceptable substitutions, and among the various subclasses of substitutions were calculated.

Eighty-six second-grade children were randomly divided into two groups. All subjects were tested for silent reading comprehension, using Level 8, Form 3M, of the Canadian Tests of Basic Skills. The first group read orally words from a list and the same words in context, and answered questions based on the oral reading. An index of difficulty for each word on the list, and indexes of difficulty and discriminability for each comprehension question were calculated. A second list of words controlled for difficulty, and a second set of questions controlled for difficulty and discriminability were constructed. Group 2 read orally the words from the second list and the same words in context, and answered the second set of comprehension questions.

Significant differences were obtained between the number of words recognized in isolation and in context, and between the graphic similarity scores for substitutions under the two conditions. Word recognition under each condition was significantly related to reading comprehension, and was more highly correlated with silent reading comprehension than with oral reading comprehension. The frequency of semantically and syntactically acceptable substitutions was significantly and negatively related to reading comprehension. The proportion of total substitutions which were syntactically acceptable, was not significantly related to either silent or oral reading comprehension. The proportion of semantically acceptable substitutions was significantly and negatively related to oral reading comprehension.

For the population studied, context significantly facilitated word recognition. Subjects directed more attention to the graphic display when reading words in isolation than when reading words in context. Word recognition in isolation was as good a predictor of reading comprehension as word recognition in context, but word recognition under either condition was a better predictor of silent reading comprehension than of oral reading comprehension. In addition, the frequency of semantically and syntactically acceptable substitutions was a better predictor of silent reading comprehension than of oral reading comprehension, and the frequency of these substitutions was a better predictor of silent reading comprehension than the proportion of these substitutions. This study supports the view that the child's control over the syntax of language is more basic to the reading process than control over meaning.

GRADE-LEVEL DIFFERENCES IN READING COMPREHENSION: A COMPARISON OF SECOND-GRADE AND SIXTH-GRADE CHILDREN'S PERFORMANCE ON PASSAGE-DEPENDENT QUESTIONS AT THREE LEVELS OF READING COMPREHENSION Order No. 7823577

McCOURT, Anne Alycia Allardice, Ph.D. Syracuse University, 1978. 408pp.

This study was undertaken to determine if there were age-related and/or comprehension-level-related and/or passage-independent/dependent differences in the responses of second and sixth graders to questions at three levels of reading comprehension (literal, inferential, evaluative). Comprehension level placement of questions was determined through use of Barrett's Taxonomy of Reading Comprehension, the model base for the investigation.

Data were collected from 96 children randomly assigned to two, equal-sized groups: Group C – pupils who read two passages and responded to questions on those passages; Group PI – pupils who responded to questions without reading the relevant passages. Within each group, there were children in two, equal-sized grade-level blocks. All children responded to the same 30 questions: 10 questions at each of the three levels of reading comprehension. The study design therefore was a 2 x 2 x 3 factorial (group x grade x comprehension level) with repeated measures on the last factor.

The experimental instrument, developed by the investigator, consisted of (a) two 750-word passages, each at a second-grade readability level; (b) 15 questions for each passage. Two pilot studies were conducted to determine the suitability of the passages and the questions.

Pupils were tested individually and performed two tasks: (a) oral reading of a passage (Group C only), oral reading of questions for that passage (both groups); (b) silent reading of the alternate passage (Group C), silent reading of the alternate questions (both groups). Pupils in Group C evidencing more than 5% oral errors on the first task were excluded from further testing. Each pupil included in the study had obtained (a) a standardized, verbal intelligence score lying within one standard deviation of 107, (b) a standardized, vocabulary score at or above the 40th percentile, (c) a chronological age indicating that the pupil had neither skipped nor repeated a grade.

An item analysis was performed on the response data, and ANOVR was conducted for hypotheses decisions. A matrix was developed correlating pupils' scores on the instrument and scores on standardized batteries of intelligence and basic skills.

The study generated five principal findings.

1. Children who read passages obtained a significantly ($p < .001$) greater total score than did children who answered questions without reading the passages.

2. After reading passages at a second-grade readability level, sixth-grade children obtained a significantly ($p < .01$) greater total score than did second-grade children. (Note: there were no significant differences between the two grade-level groups in respect to total number of oral errors.)

3. When pupils did not read the passages, there were no significant differences between second and sixth-grade children in respect to their total score.

4. When pupils did not read the passages, children made significantly ($p < .05$) more correct responses to evaluative-level questions than to inference or literal-level questions.

5. When pupils did read the passages, children made significantly ($p < .05$) more correct responses to literal-level questions than to inference or evaluative-level questions.

Among the conclusions suggested by the results were the following:

1. Since there were grade-related differences only for Group C, these results may indicate developmental differences in ability to comprehend the passages and/or perform the comprehension tasks rather than differences in ability to comprehend the questions.

2. As no significant correlations were observed between scores on the instrument and total oral errors, it may be possible that, given the attainment of a 95% level of word recognition skill, ability to pronounce words has little relationship to abilities required to comprehend text.

3. Based on indices of mean difficulty for the comprehension level subtests, it might be concluded that differences between second and sixth-graders' comprehension abilities are more pronounced at inference level than at either literal or evaluative level.

THE EFFECTS OF OUTLINING AND PREPARATORY PROCEDURES ON LEARNING FROM VERBAL MATERIALS

McGUIGAN, Jolena Bumanglag, Ed.D. University of Southern California, 1978. Chairman: Professor William H. Allen

Purpose. The major aim of the study was to determine the effect of designed printed textual material versus unembellished printed textual material on the performance scores of students learning history-related facts and concepts. The designed printed textual material employed two major design techniques: outlining and preparatory procedures. A total of five different textual modes were compared for their instructional effectiveness on two cognitive processing skills.

Procedure. A randomized control-group posttest only design was used. The experimental sample was gathered from 163 eleventh-graders at a small suburban high school in Southern California. A 3 X 5 factorial design with random assignment to treatments within classes was used. The two factors in the design included five different printed textual modes (unembellished, maximum outlining, minimum outlining, preparatory questions, and preparatory organizers) and three levels of reading ability as measured by reading percentile scores on the 1976 Stanford Test of Academic Skills. The experimental data consisted of scores for each of the categories of test items grouped according to the learning task involved. The results and analyses provided the information for the presentation of the findings.

Findings. The major results are summarized as follows: (1) There were no significant differences (.05) related to the five presentation modes for the cognitive processing skills of factual and conceptual learning. (2) There were no significant differences (.05) related to the interactions of presentation mode X ability. (3) There were significant differences (.05) between the three ability groups related to the cognitive processing skills, objective test, and fill-in test. High ability groups did better than low ability groups on all dependent variables.

Conclusions. Based on the data from this investigation, the following conclusions were drawn: (1) Although no differences were noted among presentation modes on the two cognitive processing skills, all treatments seemed to be equally effective. Unembellished printed textual material is just as effective as designed printed textual material. (2) High ability students can be expected to achieve greater score gains in history than low ability students. (3) High ability students studying history can be expected to perform equally well regardless of presentation mode. (4) Low ability students perform just as well as average ability students in factual, objective, and fill-in tests.

Recommendations. The following recommendations for future research are offered: (1) Investigate the effects of structuring different versions of organizers on learning facts and concepts. (2) Conduct outlining studies requiring meaningful interaction (where the learner outlines the material on his/her own) between learner and material. (3) Conduct studies comparing the effects of instruction versus no instruction on learning from outlining. (4) Experiment with pre questions which discuss the topical nature of the forthcoming material as compared to discussion of the structure of the material to come. (5) Investigate how the major variables of this study can be built into the instructional message to make them stronger. (6) Develop a more valid testing instrument that would effectively measure the interactions of design factors for different learning tasks. (7) Replicate this study on a similar but larger population to corroborate or refute the results presented. (8) Replicate the study using different content material, different populations, and including a delayed posttest.

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STRATEGIC PROCESSES IN BEGINNING READING: A DEVELOPMENTAL VIEW Order No. 7821241

SCHWARTZ, Robert Michael, Ph.D. University of Illinois at Urbana-Champaign, 1978. 100pp.

One possible definition of reading fluency is the efficient construction of a semantic representation of written text. Since texts can be analyzed at a variety of levels, such as letters, spelling patterns, words, etc., comprehension requires a basic strategic coordination of processing activities. As the information processing system for reading develops toward fluency there should be increased efficiency in the construction of a semantic representation.

The efficiency of processing thematic information was investigated by requiring attention to secondary tasks while reading. The secondary tasks directed attention to various aspects of the written code subsidiary to the thematic structure. It was hypothesized that story recall under secondary orienting conditions would depend on the level of semantic analysis induced by the orienting task. Furthermore, the level of recall under simple intention memory instructions, as compared to performance under secondary tasks, would depend on the extent of semantic analysis normally engaged by the reader.

Forty students from second, fifth and college levels read and recalled grade appropriate narrative stories under four sets of orienting instructions. In one condition, subjects were instructed to simply read and recall; in the other three conditions these basic learning instructions were combined with secondary orienting instructions. The secondary tasks were embedded within different versions of the stories by appropriately modifying word sites of every fourth word of four or more letters. These conditions required subjects to make either semantically based word choices, decode unfamiliar orthographic patterns (reversed letter sequences) or perform letter matching operations at each target site. These tasks, respectively, require decreasing degrees of semantic analysis to support appropriate performance.

The results were analyzed in terms of idea unit recall, based on an idea unit structure established in a preliminary study, and recall of target words comprising sites for the orienting tasks. For adults the extent of idea units recalled across tasks conformed to the original hypothesis about semantic levels of the orienting tasks. However, the high recall of target words in the word choice and reversed reading conditions suggests that recall differs qualitatively as well as quantitatively across tasks. That is, the focus of criterion decisions on individual words appears to create a scaffolding about which the idea structure is formed. The use of semantic information to make word level decisions creates an incidental semantic representation of the text.

For younger subjects the pattern of results is less differentiated across tasks. The normal mode of processing appeared to be similar to that used in performing the secondary tasks requiring word level decisions. Thus, these subjects appear to normally operate by focusing attention on criterion decisions at the word level rather than strategically coordinating information at the thematic level.

The main implications of this research are that better instructional procedures are needed to promote and assess integration of information at the thematic level. While incidental semantic processing might result in sufficient comprehension of relatively simple narrative materials, more complex idea structures may require a more active, strategic approach to comprehension.

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